## ABSTRACT OF THE DISCLOSURE

Texture mapping includes (i) calculating the weighted average of the colors of two texels near a particular pixel, (ii) determining a fractional portion of a texture coordinate of the pixel, and (iii) retrieval of a pair of complementary coefficients from a table of pairs of predetermined, complementary coefficients according to the fractional portion of the coordinate of the pixel. Each of the complementary coefficients corresponds to the relative distance between the pixel and each of the two texels as represented by the fractional portion of the first coordinate of the pixel in the coordinate space of the texture image since each texel has whole, integer coordinates in the coordinate space of the texture image. Each coefficient of the pair of complementary coefficients is used to weight a respective one of the colors of the two texels and the weighted colors are summed to produce a weighted average color of the two texels. A weighted average of the colors of the other two of the four nearest texels is calculated in the same manner. The pair of complementary coefficients are partitioned values in a single data word and are therefore loaded into the processor which performs the calculate the weighted average only once to weight two separate colors. The precision and data format of each coefficient of the table are the same as the precision and data format of each component of each pixel of the rendered graphical image. Accordingly, the processing environment remains unchanged while a computer processor alternately interpolates a texel color and combines the interpolated texel color with the color of the pixel.